agrees very nearly with the statements already mentioned in this communication.

November 1. During the past eight days the discharge from the lupus has been very trifling. To-day I was unable to procure the amount of half a drop. In this small quantity I found two or three quadrangular cells of sarcinæ. Patient has frequently been questioned relative to any gastric trouble, and has uniformly replied that none existed. To-day, however, she was asked if she had ever been troubled with what is called "water-brash," and she replied in the affirmative. I must be allowed to say that as the answer was in return to a leading question, she appeared to speak in accordance with what she supposed to be my wish. Her attending physician states to me that she never had any pyrosis, or symptoms at all indicative of any such condition.

BOSTON, Nov. 1, 1853.

ART. VI.—*Epidemic Cholera; its Contagion, Pathology, and Cure; with an Account of the Disease as it prevailed in Cumberland, Md., during the past summer.* By C. H. OHR, M. D., of Cumberland, Md.

MUCH diversity of opinion exists, as well in as out of the profession, in regard to the contagion of cholera. My observation of the disease in 1832–33, led me to the adoption of the opinion that it is neither contagious nor infectious; and I adhered to that opinion until the appearance of the disease in this place during the summer of 1853. The definitions of *contagion* and infection are so varied and dissonant, that it is well for each one using these terms, if he would not be misunderstood, to "define his position." In using the term *contagious*, I use it according to its radical meaning: *con*, by or with, and *tango* or *tago*, I touch—by actual touch or contact; as, for example, scabies, lues, &c. By *infection*, I mean the propagation of the like disease, by means of a vitiated or poisoned atmosphere emanating from and surrounding the diseased person, to other persons coming within the range of that atmosphere, without contact of the body or clothing of the diseased subject. Cholera, as is the case with other diseases, has laws by which it is governed; that we do not understand them, is no proof that they do not exist. If ever we arrive at a full and accurate knowledge of these, it will be by the faithfully reported history of its origin and progress at the various localities in which it makes its appearance. By the combination of such reports, and a patient analysis of their details, an approximation to truth is much more probable than by theorizing on isolated cases. My purpose is to give its origin and progress at this place, so far as my observation and inquiries in reliable sources have enabled me to trace it.

The first case which occurred in this place was in the person of a boatman on the Chesapeake and Ohio Canal, named Mayo, who presented himself at my office early one morning about the middle of July; his countenance was to me a sufficient index of his disease, which was fully established by examination. My inquiries elicited the fact that he was just from Williamsport, in the adjoining county, on the canal, at which place cholera was then raging with considerable violence; he lay out that day and night on the "green," and next morning was a corpse. The next case occurred about the last of July or first of August, in another boatman, and from the same place; he lay in a "green grocery," kept by a man named Hall; he recovered. This establishment was situated on the west side of Wills Creek, at its junction with the Potomac, and on the corner of Green Street. On the 6th of August, a little girl living with Hall died, and on the 7th Hall also died of cholera. On the same day, a boat-builder, named Cooter, was taken with the disease, and died in nine hours; he had been at Hall's a part of the preceding day; he lived on the east side of Wills Creek, on Mechanic Street, about a mile north from Hall's. In the mean time, several other deaths had occurred on Green Street, in the immediate neighbourhood of Hall's. On the 8th, Kennedy and several of his family manifested the disease; they lived about fifty yards from Hall's, and had had intercourse. On the night of the 8th, Hazel Beall, a watchman, was taken with the disease, and lived until the 14th; he had been at Hall's, and lived on North Mechanic Street, near Cooter. On the 12th, Mrs. H. Beall was taken with the disease, and died the same day. Four of their children were taken successively, and some of them were carried into the adjoining house of Mrs. A. Simpkins; two of them died, as did also Mrs. Simpkins and her child. On the 10th or 11th, Mrs. Nelson Beall went to Hazel's, and assisted to nurse; she was taken with the disease, went home, and died on the 13th; her husband and two children were taken with the disease, and died by the 19th. They lived out of town, about a mile and a quarter southeast from Hazel Beall's, on the Bedford road. No other persons in that neighbourhood were taken with the disease, and none of them entered the house from first to last. On the 18th, R. Sullivan was taken with the disease; he had been a day and night at Hazel Beall's; he lived out the eastern pike, near three-fourths of a mile from Hall's, and a greater distance southeast from Beall's; his mother and three children of a brother were successively taken; the mother and two of the children died. No other persons in that neighbourhood were taken with the disease except two mulatto girls, named Cole, both of whom had been assisting to take care of this family; they will be farther noticed in speaking of the treatment. During the interval from the 6th to the 18th, a number of deaths had occurred along Green Street; all passed off for cholera morbus; a less number had occurred on different parts of Mechanic Street, and some other points. The disease had been gradually thickening, the warning voice had been raised and disregarded, the citizens generally disbelieved, and most of the profession denied its existence. But the hideous fact stood at the door, and would no longer be excluded; "Blue Friday" (the 19th) came, and numbered thirteen victims; the panic became universal, and by the close of the week the town was stripped of half its population; more than three thousand souls had abandoned home and friends; the disease was diffused all over town, and consequently no longer traceable.

Prior to this time, the summer had been more than usually healthy, there had been an occasional case of dysentery and cholera morbus, with a moderate number of cases of cholera infantum. The season had been unusually dry and hot; vegetation had suffered seriously from drought and grasshoppers; the air seemed pure and calm; there was nothing to indicate the coming disaster, unless it was in the imperturbable and unbroken calm of the elements. On the night of the 15th, our town was visited by a very heavy rain; the day of Tuesday seemed like its predecessors, but that night the watchmen's rattles and alarm-bells raised many of our citizens, not to the cry of *fire*, but *water*. It seemed as though a mighty avalanche of water had been suddenly hurled down the gorges and valleys of Wills and Knobley Mountains, rendering egress from many houses impracticable until the waters had subsided. On the morning of the 17th, many of our streets presented the ravages of the flood; in and around the public square could be seen, piled in indescribable confusion, lumber of all sorts, barrels, drygoods-boxes and coffin-boxes, and a plentiful deposit of mud and filth covered the principal streets. On the 18th, the disease was multiplying, and on the 19th reached its acme, but continued till October to a greater or less amount daily. One point more as to its origin. Hall's "green grocery" was a long, low, old frame one-story building, with about one-half that story below the pavement, which approached within three feet of it; it was kept for the retailing of cakes, candies, liquor, bacon, potatoes, cabbages, and rotten codfish, of which last article he had at the time of his death a plentiful supply; a place for the congregation of boatmen, loafers (white and black), and strong odours; apparently as favourable a place for the incubation of pestilence as could be desired. My inferences from the preceding are, that the poison, miasm, or *infection*, was brought from Williamsport by the boatman who lay sick at Hall's; that it was there incubated, was disseminated through the girl, Hall, Cooter, Kennedy, Beall, and others; was aggravated and hastened by the floods of the 15th and 16th, and was continued by the premature return and imprudence of the stampeders. To my mind, whatever it may have been elsewhere, it was here clearly infectious.

In entering upon the discussion of the pathology of cholera, I do not advance a new theory; the leading ideas were taught me, twenty years since, by my preceptor, Dr. Bœrstler, now of Ohio, and is one which is acknowledged, to a greater or less extent, by many others; but its paramount importance seems not to have been duly appreciated, therapeutically, until recently. Within the last two years, Prof. Edwards, of Cincinnati, has publicly challenged the attention of the profession to this pathology and a system of treatment based thereon. This theory is not based on *post-mortem* appearances affirmatively, but negatively; the knife shows no appearances which can in the remotest degree account for the appearances preceding death. Pathological anatomy failing us, we must rely on physiological anatomy:

My first proposition is, that epidemic cholera is primarily and pre-eminently a disease of the nervous system, and more especially of the *sympathetic or ganglionic system of nerves.* The second proposition is, that it is a depression or paralysis of the powers of these nerves. That it is a disease primarily affecting the nervous system, is argued from the suddenness of the attack and fatal termination; from the fact that no *post-mortem* appearances have been discovered which indicate any disease of other parts sufficient to account in any degree for the *ante-mortem* appearances; and from the fact that disease or lesion of no other part of the system produces death so speedily without leaving decisive marks behind it. That it is a disease of the nervous system, is argued from its most common proximate causes, from the habits, temperament, and condition of its subjects. That it is more especially a disease of the *sympathetic* nerve, we learn from the *ante-mortem* appearances and the physiological functions of that nerve. What are these functions?

> "The sympathetic thus appears to exercise a threefold office: first, that of a sensitive nerve to the parts to which it is distributed; secondly, that of a motor nerve for certain muscular parts; and, thirdly, that of a nerve to the bloodvessels. It is almost certain that the bloodvessels enjoy in their coats a power of contractility, and it seems highly probable that these nerve-fibres exercise an influence upon that contractility. Such an influence, it is evident, would materially affect the nutrition of parts of the bloodvessels which are subject to it; and as secretion is mainly dependent on the normal nutrition of glands, it is reasonable to suppose that that function likewise would be, to a certain extent, controlled by these nerves." The sympathetic is "a portion of the nervous system peculiar in its composition, having, as regards some of its constituent fibres, a special relation to bloodvessels, particularly arteries (and these are the fibres which are independent of the cerebro-spinal centres, having distinct centres of their own)." "Clinging to the coats of arteries, it follows them, for the most part, in their ramifications, and attaches itself to them, somewhat as ivy does to a tree." "The intestinal canal, between the stomach and the lowest part of the colon, receives no nerves direct from the cerebro-spinal system, and is therefore dependent solely on the sympathetic for whatever of sensibility it enjoys, or for such motor power as may be usually called into action by nervous influence." (Todd and Bowman.)

If tubal digestion and assimilation are subject to nervous influence, they are consequently dependent for that influence on the ganglionic system of nerves. Does this nerve regulate only the contractile action of the arteries, or does it extend an influence beyond the external tube? Does not the circulating mass also, through the medium of the endangium, feel the influence of this nerve of organic life, and is not its vitality maintained through this agency?

What are the appearances presented in a cholera subject? The patient at first feels languid and depressed; these symptoms are dependent on disturbance of the nervous system, and are more marked after the epidemic is fairly developed; he is harassed with borborygmus, dependent on deficient ganglionic nervous energy; diarrhœa, at first slight and of the natural colour, but soon becoming thinner and lighter coloured, for want of biliary secretion, at last consisting of a limpid watery fluid, with a small quantity of whitish or pink-coloured flocculi, showing an absence of secretion by the intestinal tube and all the glands ordinarily emptying their secretions into it. As the intestinal tube shows no evidences, before or after death, of inflammation to such a degree as to produce such results, and the intestinal tube has no other nervous filaments, these phenomena are dependent on lesion of the ganglionic system of nerves. Spasms, not invariably, are attributable to disturbance of the nervous centres and their ramifications; suppression of urine, attributable to want of energy in the sympathetic nerve; coldness of the tongue and breath, a peculiar coldness and lividity of the skin; retrocession of the eye into its socket, injection of the conjunctiva and dryness of its surface, all dependent on lesion of the ganglionic system of nerves.

> "He found that the division of the trunk of the sympathetic in dogs, opposite the third or fourth cervical vertebra, was followed with remarkable rapidity by a disturbance in the circulation in the eyeball, giving rise to a swollen and apparently inflamed state of the conjunctiva, a contracted state of the pupil, a flattening of the cornea, and a retraction of the eyeball, with the protrusion of the fold of the conjunctiva known by the name of the haw, and a flow of tears. Dupuy found similar effects resulting from the extirpation of the superior cervical ganglion in horses. Dr. J. Reid confirms these results of section of one sympathetic in the neck, as far as regards the eye; and he agrees with the other observers in stating that the injected state of the conjunctiva followed immediately after the section. In one case, he states that the redness of the conjunctiva took place a few minutes after the operation." (Todd and Bowman, p. 510.)

This demonstrates the truth of my second proposition incontestably, so far as the appearance of the eye is concerned; that is a thing tangible and visible. What is true as regards the eye, is true as regards every other organ or tissue of the body under the control of the ganglionic system of nerves. The establishment of that point necessarily establishes the whole proposition, because here is submitted to *the eye* of the observer the control exercised over the circulation by the ganglionic nerve. And with the circulation goes secretion and the nutrition of parts; but when we come to the digestive tube, and bear in mind the fact that "between the stomach and the lowest part of the colon" no nervous filaments are supplied except from the ganglionic centres, you have the explanation of the *quasi* appearance of inflammation that has been sometimes described as existing. Not only does this account for the injected condition of the intestinal tube, but also for the absence of secretion and the want of nutrition. The circulating mass receives no supply from assimilation, is deprived of the vital stimulus supplied by the sympathetic, dissolution ensues therein, its parts separate, and the tissues of the circulatory vessels and intestinal tube, also deprived of their vital energy, permit the principles of exosmose to come into play, from which results "rice-water" discharges, consisting of the serum and portions of albumen of the blood. What pathological anatomy has failed to decipher is clearly shown by physiology and the *ante-mortem* appearances. In establishing this theory, reliance has not been placed on the writings of parties who had a particular theory to establish; these things were observed and written with no special reference to cholera, and therefore are most reliable.

A rational pathology alone admits of a rational system of treatment. In cholera, modes of practice the most opposite and irrational have had their advocates, from the first general outbreak of it to the present time, both in and out of the profession. These it is not my purpose to review, nor shall I occupy your space by notice of but one, not so much on account of its irrationality as on account of the serious manner in which this long-buried ghost, recently dragged from its grave, is again urged upon the profession. I refer to the system of injections, rectal and venous. As an adjuvant to *treatment*, anodyne and astringent substances, injected into the rectum, may sometimes prove serviceable, but cannot of themselves arrest a developed case of cholera, much less cure it. The injection of saline matters into a vein is less philosophic and less useful; if the artificial introduction of these substances into the blood will cure the disease, their natural existence there should have prevented it. Does or can a combination take place between the injected fluid and the crassamentum of the blood, anything like to its original and healthy condition? Will that combination be maintained, and the thin portions no longer be thrown off? Can you knock the heads out of a barrel and fill it by pouring water in at the bunghole?

In the earlier, or, as it is frequently called, the premonitory stage of cholera, when it consists of slight diarrhœa, with uneasiness in the bowels and a feeling of sickness, the cure is generally easy enough. The following I have found to answer a very good purpose: ℞. Tinct. opii, elixir paregoric, aqua menth., equal parts; half a teaspoonful every hour or half hour, until the bowels are checked; a large sinapism to the abdomen, go to bed, and keep quiet. The occasional use of ℥ss of brandy, and three or four grains of mass hydrarg., with gr. ¼ or ⅓ of opii, are sometimes necessary to regulate the secretions. Unfortunately, the practitioner is frequently not consulted in this condition of the disease. When the discharges have become frequent, thin, almost devoid of colour, vomiting, cramps, coldness and lividity of the skin are manifest, he is more likely to be called on. These symptoms characterize the second or congestive stage of the disease, and, if not speedily arrested, run into collapse. In this stage, calomel and opium have acquired and deserve more the confidence of the profession than any other of the heretofore commonly used agents; there is sound philosophy in their use, though they are frequently misused. I have found small and frequently repeated doses to answer the best purpose, and relied on them until the 21st of August last, on which day, in consequence of reflections excited by the scenes of the 19th, and the perusal of Prof. Edwards's report, I resolved on and adopted the strychnia treatment, first in the case of—

Mary Cole, a mulatto girl, aged about 23, whom I was called to see on the 21st of August, at 8 A. M. She was vomiting, and purging "rice-water;" countenance sharp and shrunken; eye injected and deeply sunken; voice very weak; tongue and breath cold; respiration slow, with frequent sighing; pulse too irregular and indistinct to be counted; skin marbly cold, but dry; cramps occasional, with great thirst and restlessness. ℞. Strychnia gr. ¼; spt. terebinth. ʒij; mucilage G. A. ℥vj. M. One teaspoonful every thirty minutes; large sinapism to stomach, and hot bricks to feet and legs. 10½ A. M. Has had but two doses of the medicine, which were ejected; pulse gone; inclines to stupor; thirst intense, and dejections continue; give the medicine every hour, and a tablespoonful of brandy and water half an hour after. At 3 P. M. Dr. Dailey saw her with me; she had taken but one dose of the medicine, and refuses the brandy; vomiting and purging continue, but decreased in quantity; the doctor thinks she may live an hour; before leaving the house, I gave her a teaspoonful of the mixture, and insisted on its repetition every hour, with a little ice to allay the thirst. From that time she took but three doses, which were retained up to 7 A. M. of the 22d; there was then a very slight tremor perceptible at the wrist; the discharges have nearly ceased; vomiting recurs whenever drink is taken. Give the medicine every hour, and nothing else. At 10 A. M. I saw her again with Dr. D.; he thinks she may get well, as reaction is coming on; give the medicine every hour, apply the hot bricks, and give no ice or anything else than the medicine. At 7 P. M. she had taken but one dose of medicine; would drink; vomiting and purging had returned; pulseless; comatose; skin perspiring freely; voice scarcely perceptible; eyes deeply sunken in the socket, and very much injected; apply a large sinapism to abdomen and to arms, at least six hot bricks to legs, and give the medicine every half hour, and nothing else, until the discharge has stopped or become coloured. At 7 A. M. of the 23d, she had taken four doses of the medicine; reaction coming on; had this morning a slight greenish discharge; give her two teaspoonfuls of rice-water once an hour, the medicine every two hours. On the 24th, she complained of great hunger; she was allowed that day a small quantity of blanc mange, and water in moderate quantities. On the 25th, arrowroot and soaked cracker; 26th, chicken water and rice; 30th, she was sitting beside a pot of bacon and beans; she took in all ℥ijss of the mixture, and no other medicine, and is now as fat and hearty as ever. Her sister, Liz, was taken with the disease on the 23d; gave her—℞. Protochlor. hyd. grs. iv; pulv. opii, gr. ⅓. M. f. pills, one every hour till purging is stopped. 24th, 8 A. M. Had taken three pills; collapsed; no pulse, and perspiring freely. ℞. Strychnia, gr. ¼; aqua menth., mucilage, āā ℥ss; one teaspoonful every twenty minutes. This formula was used because she complained of the smell of the terebinth producing vomiting; mustard plaster and hot bricks as above. 11 A. M. Has taken four doses; no discharge for the last hour; skin drying; pulse barely perceptible; give the medicine every hour until the discharges are checked or coloured. 5 P. M. Reaction is complete; secretion of urine; the last dejection green. She took ℥j of the mixture, and the day following—℞. Mass. hydrarg. grs. v; pulv. opii gr. ss. M. f. pill. Was taken for the purpose of arresting the dejections, which were a dark green and scalding; she was then put on the same diet with her sister.

Alice Riley, æt. 38, I was called to see at 10 o'clock of the 24th August; she had been taken the preceding day, and had been abandoned that morning by her physician, according to her statement. What medicine she had taken I did not, under the circumstances, stop to inquire; she was pulseless; the skin cold, livid, shrivelled, and bathed in a profuse cold sweat; cramps; limpid dejections; voice a whisper; eyes deeply retracted, and injected features; sharp and purple tongue, and breath cold. ℞. Strychnia gr. ¼; spt. terebinth. ʒij; mucilage ʒvi. M. 1 teaspoonful every half hour; half a dozen hot bricks to the legs, and no drinks. 12, M. Has taken three doses of the medicine; bowels quiet for the last hour; no vomiting or cramps; pulse perceptible at the wrist; skin drying off, but still cold. ℞. Proto-chlor. hyd. grs. v; pulv. opii, gr. ss; MM. f. pills ij; one now to be followed by the mixture, and pill alternately every half-hour; no drinks. 2 P. M. Skin dry, and becoming warm; pulse tolerably distinct; small; has urinated; bowels not moved; time to give the mixture; give it; then suspend, and let her have ice in small quantities, once in twenty or thirty minutes. 7 P. M. Still improving; no motion of the bowels; take one pill as prescribed this morning. 25th, 8 A. M. Had a comfortable night; had a dejection this morning, slight and green. Arrow-root seasoned with cinnamon. 26th. Taken the case into her own hands on the 27th; went down stairs, and engaged in nursing.

Henry Knierim, æt. 55, German, of intemperate habits, called me August 28, 6 A. M. Vomiting and purging a clear limpid fluid, with a slight pinkish deposit of flocculi; cramps; pulse hardly perceptible; skin bathed in a profuse perspiration; cold, shrivelled, and purple tongue; cold; eyes sunken and injected. R. Strychnia gr. ¼; spt. terebinth. ʒij; mucilage g. Arab. ℥ss. M. 1 teaspoonful every thirty minutes; sinapism; epigas.; hot brick to legs; brandy and water ℥ss, occasionally. 7½ A. M. Has taken the mixture and brandy; vomiting continues, and dejections; pulseless; give the mixture every twenty minutes; no other liquids or ice. 10 A. M. Purging has ceased for the last hour; pulse again perceptible, and skin less wet; continue medicine every hour. 6 P. M. Reaction complete; had one dark green operation, and discharge of urine; skin still moist; no cramp; take ʒss of the mixture every three hours, if bowels should be moved so often. 29th, 6 A. M. Rested well; took but one dose of medicine, but complains of great thirst and nausea; reapply sinapism. 10 A. M. Has drunk a glass of lemonade; vomiting and purging of a clear fluid; pulseless; livid and sweating; seems to be rapidly sinking; give the mixture every fifteen minutes, and surround with hot bricks and bottles of hot water. 12 M. The purging has ceased; pulse perceptible; vomiting occasionally of a greenish fluid. Apply sinapism, and keep up hot applications; give the medicine every hour. 4 P. M. No dejection; has urinated; vomits, or rather regurgitates, when he attempts to raise himself, or take a drink; suspend the medicine. 30th, 7 A. M. Reaction seems complete; but vomiting of the greenish fluid continues; apply spiced whiskey to epigastrium, hot as it can be borne; take no drinks. 5 P. M. Vomiting still continues. ℞. Acid. hydrocyan. gtt. xvi. bicarb. soda ʒss; aqua font. ℥j. M. 1 teaspoonful every hour until the stomach is quiet; continue hot applications. 31st, 6 A. M. Vomiting of the greenish fluid continues, but less frequently; bowels moved twice; greenish. ℞. Acid. hydrocyan. gtt. xvj; acet. morph. ¼ gr.; aqua font. ʒj. M. 1 teaspoonful every hour. 11½ A. M. Stomach seems quiet; suspend medicine, unless the vomiting returns; abstain from drinks or food till evening, then take rice or chicken-water, seasoned well with cinnamon; recovered.

John F. Fulten, German, æt. 50. August 30, 2 P. M. Collapsed. ℞. Strychnia ¼ gr.; spt. terebinth. ʒij; mucilage ℥ss. M. One teaspoonful every half hour; he took four doses, when it was suspended; he was doing well until the next day, when he took a dose of beer; after this the discharges recurred and mixture; of this he took five doses, then suspended it; he was doing well until the morning of the 2d September, when a plate of bonny-clabber started him the third time. The mixture was again resorted to, until he had taken four doses; the diarrhœa was suspended, but vomiting of a greenish fluid continued until the 5th, when he died. The vomiting in these cases was attributable to the overaction of the strychnia; in the case of Knierim, this was counteracted by hydrocyanic acid; it failed in the case of Fulton, because its use was not persisted in beyond a dose at my visits, and he was indulged in drinks.

August 30, 4 A. M. Was called to see Mrs. R. R., aged 55, of exceedingly frail constitution; had in the spring an attack of typhoid pneumonia, from which she had not recovered fully; was taken with diarrhœa about midnight; pulse barely perceptible; cramps severe; skin cold, moist, shrivelled, and purple; eyes sunken; injected; and between the cornea and inner canthus of the left eye, the sclerotica presents a greenish-black spot, irregularly circular, about two lines in diameter. Ordered ℞. Strychnia ¼ gr; spt. terebinth. ʒij; mucilage ʒvj. M. 1 teaspoonful every hour, to be alternated at the half-hour. ℞. Protochlor. hyd. gr. iij; pulv. opii gr. ss. MM. f. pill, and a teaspoonful of brandy; rub with dry mustard, until hot bricks are procured, with which surround. At 10 A. M., the bowels were quieted, and the skin more dry; both eyes presented the dark spot between the cornea and inner canthus; enlarging; she died about 3 P. M. Whether the medicine arrested the discharges, or they ceased because there was no more fluid to escape, I will not determine; but at my first visit it was evident that no medication could save her, as the process of gangrenous disintegration was manifest in the eye, indicating the want of sufficient vitality in the ganglionic system to respond to medicine.

The following case was furnished by Dr. B. A. Dougherty:—

August 31. 4 A. M. Called to see James C——m. Vomiting and purging "rice water;" cramps in legs and abdomen, countenance livid, tongue cold, pulse small and rapid; was seized with vomiting and purging the preceeding afternoon. Ordered ℞. Prot. chlor. hyd. gr. iij; pulv. opii gr. ss; pulv. capsici grs. ii, every half hour. Sinapisms to abdomen and extremities. 7 A. M., is sinking, vomiting and purging continue. ℞. Sulph. strychnia gr. ss; ol. terebinth. ʒij; muc. g. Arab. ℥viij; one teaspoonful every 15 minutes. 4 P. M., vomiting very slight, diarrhœa arrested; tongue warm, cramps slight, pulse improving, and warmth returning to extremities. 7 P. M., tongue cold, pulse extremely feeble, vomiting much increased; had one or two discharges, rather green and thin; had taken two tumblers of beer; continue mixt. and give brandy julep. Sept. 1, 7 A. M., vomiting a light-green fluid occasionally, no diarrhœa, extremities warm, and assuming a natural appearance; continue. 3 P. M., much improved, vomiting nearly same as in the morning; suspend strychnia. ℞. Prot. chlor. hyd. grs. x; pulv. opii gr. i; continue brandy. 8 P. M., vomiting ceased and altogether very much better; no action on the bowels; directed beef-tea, rice, and brandy. Recovered.

My partner, Dr. J. M. Smith, at my request, furnished the notes of the following case of a male infant, 3 years old:—

"I saw him first on the 22d August; had some diarrhœa, with occasional vomiting. There was nothing in the appearances to indicate danger, and but for the existence of cholera in the neighbourhood, no reason to apprehend any. I gave prot. chlor. hyd. with a small portion of opium, and a carminative mixture with tr. opii added, to be given every 4 hours as might be required to restrain the bowels, directing mustard plaster and hot whiskey cloths to be applied alternately. Until the morning of the 25th there was no material change; the passages were not frequent, and still coloured. I learned, on the morning of the 26th, that he had had several watery colourless passages during the night, not staining the clothes; the ejections had the same colourless appearance. I gave him one or two doses of calomel and opium and the common cholera mixture, to be repeated after every operation, with brandy and ice water, and occasionally ice water alone. The passages in frequency and amount more lessened, but thin and colourless; in the evening he took no notice, and fearing the opiates by the mouth, gave spts. camph. and aqua menth. every two or three hours, and enema with tr. opii and spts. camph. after each operation. 27th. Had been restless during the night, but noticed nothing; had several small, thin, and colourless passages; continued the remedies without much hope of doing any good. During the day the passages continued about the same; in the evening more depressed; pulse extremely feeble; extremities only kept warm by hot applications; skin clammy, but no very free perspiration; directed the spts. camphor, the enema occasionally, and brandy or wine and water sinapisms to extremities. 28th. Rather more depressed; been insensible during the night; his death had been hourly expected by the family. Thinking no evil could possibly result, determined to give the strychnia (I had not before given it to small children). I directed the prescription kept in the office, adding two parts water to one of the mixture,[1] directing half a teaspoonful to be given alternately every hour with the spts. camphor until he had taken three doses, then to suspend it. M. He was much in the same condition; no operation; skin dryer. In the evening had had no passage; extremities rather warmer; still insensible; directed one dose of the strychnia, and the spts. camphor to be continued. 29th. Restless during the night; had one slight dark passage; takes no notice, but more expression of the eye; skin warm and dry; pulse distinct; directed one dose of the strychnia and spts. camph.; rice water with a little wine. Evening, observes things around, but does not speak; had two small dark passages. Continue spts. camph., rice water, or arrowroot, with wine. On the 30th he spoke, and from that time continued to improve."

I shall add but a brief history of my own case:—

I had been suffering from dysentery when the epidemic began, say 6th August; circumstances would not then permit my attending to it; it was kept in moderate bounds by occasional small doses of blue mass and opium, and laudanum, with low diet, until the 16th, when the discharges were nothing but bloody mucus, when, at the urgent entreaty of Drs. J. M. Smith and G. C. Perry, I agreed to attend to myself; at 10 o'clock, I took prot. chlor. hyd. ℈j; pulv. opii j, and went to bed; 4 hours after, took ol. ricini ℥i; and next morning was out by daylight; the epidemic increasing. With a constant uneasiness and disposition to diarrhœa from that time up to the 20th of September, I struggled on by keeping up the use of blue mass et opium and anodyne mixture. On the evening of the 19th September, a decided diarrhœa manifested itself; on the morning of the 20th had two copious light-coloured, thin discharges, which brought me to the sofa at 10 A. M., when I took ʒj of the strychnia mixture of the above formula. This quieted the commotion. On the 21st ordered arrowroot, which again produced discharges of yeasty light-coloured appearance, but consistent—℞. Prot. chlor. hyd. grs. iv; pulv. opii gr. ss, of which two pills were taken. On the evening of the 22d I again tried food, with the same result; during the night took two doses of the mixture, and at daylight had a clear limpid discharge, with flocculent deposit, amounting to a quart. I immediately sent for Dr. J. M. Smith, feeling that another dose of the strychnia mixture would produce vomiting, the turpentine, as I had found in some other cases, provoking the stomach, stating my inability to take more of it. He then had it prepared as I requested, substituting aqua menth.—℞. Strychnia gr. ¼; aqua menth., mucilage, āā. ℥iij. Mix. Of this a teaspoonful was given immediately; in a few minutes I felt it would do its work. From my previously exhausted condition, the Dr. feared that farther discharges would so sink me as to render reaction impossible, and to aid in preventing that, a dose or two of the anodyne mixture were given, with anodyne and astringent suppositories; the evening of the 23d, the 24th, and 25th were blanks to me; four doses of the strychnia of the last formula were taken. On Monday morning, the 26th, I awoke to consciousness and a stomach that would retain nothing. Ice, juleps, camphor and mint water, creasote, etc., returned as soon as swallowed. Sinapisms and spice-bags all proved useless. A blister was applied, and a few hours after a teaspoonful of the hydrocyanic acid mixture, settled the difficulty. On Tuesday drinks were allowed in small quantities, Dr. S. having left immediately after giving the hyd. acid, under the full impression that that too would fail, and he should see me no more in life. In my case, as in the case of the two Germans above related, the remedy had been pushed farther than necessary. All expedients failed to allay the over-excitement of the sympathetic, until the hydrocyanic acid was administered; in my case it acted more promptly than in any others in which I had administered it, probably owing to the fact that I got a larger dose; the Dr. having given me one-third of the mixture, when he intended it should be one-fourth.

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[1] This mixture contained strychnia 1-16th gr., spts. terebinth. gtt. xij to ℥j.

Much more might be added, but it would be asking too much of your valuable space. In relating cases, the object has been to give bad cases, to show fully the action of the remedy; from the details given a correct judgment can be formed; the minutiæ of treatment must be regulated by each practitioner; according to the peculiar type which the disease assumes in different localities. General principles are what I have here aimed at exposing; the reader must draw his own deductions, and shape his practice according to the cases he has to deal with.

CUMBERLAND, MD., December 7, 1853.